

thereon, the graphic data 20 as indicated above. It is, of course, understood that the graphic data need not be applied by an electrostatic process, but may be printed directly thereon by suitable printing processes employing ink which will adhere to plastic. Such inks and dyes are well known in the art and many examples of plastic materials having various imprints on surfaces thereof are widely known.

Underlying layer 22 is an electroluminescent panel 23. Essentially, the electroluminescent panel is well known. Such panels are basically capacitors which will emit non-thermal light energy when excited by a suitable source. Many materials such as phosphors exhibit the luminescent characteristic.

A luminescent material such as employed in panel 23 may be considered as a transformer of energy and in essence, converts electric potential to photons. Many examples of such materials are well known in the art and common materials such as ZnS, SiGe, CdS, ZnS and so on exhibit such properties. If reference is made to the above noted patents, certain of the same contain descriptions of electroluminescent capacitors which may be employed in operation of this invention.

Essentially, the panel will emit light upon application to the panel of a suitable source of potential. The panel 23 will emit a steady glow at a relatively low intensity; which intensity is, of course, a function of the magnitude and frequency of the applied voltage. The effect is well known and such panels are presently commercially available and are relatively inexpensive while being extremely thin.

Underlying the electroluminescent panel 23 is a back protection panel 24 which may be fabricated from cardboard or paper. As is seen from FIG. 2, the composite structure thus depicted are all contained within the back cover member 13 associated with the book 10.

It is noted that the panel 22 containing graphic data can be easily removed and replaced. It is also understood that the luminescent panel 23 can be glued or permanently secured to the back panel 24 which can be rigidly secured to the cover member 13. Hence, the panel 22 would be the only panel that can be removed through the opening 14 in the cover member 13. In this manner, the operator of a restaurant or any establishment can change the graphic format as often as desired by merely removing the sheet 22 and replacing it with a new format.

Shown in FIG. 1 is a power source 30 and a suitable battery such as 31. The power source and battery 31 are conveniently contained in the thicker spine section 11 of the book. As shown in the FIG., suitable biasing leads or wires 32 are directed from the power source 30 to the luminescent panel 23 for applying an operating potential thereto. The battery 31 employed may be extremely small and a rechargeable type such as a nickel cadmium cell.

Also shown are two wires 33 and 34 extending from the battery and directed to a connector to enable the operator to charge the battery as often as desired in order to maintain its voltage.

Also shown in conjunction with the menu is a switch device 35. As will be explained, the switch 35 operates to apply potential from the power source 30 to the panel when the menu is opened. When the menu is closed, the power source is inactivated and hence, no energy is consumed in the closed position.

Referring to FIG. 3, there is shown a bottom view of the menu of FIG. 1. As indicated, the spine section 11

contains a suitable power source and battery supply. A socket 66 is shown. Socket 66 enables one to plug the menu into an AC line for charging the battery 31, as will be explained.

Also shown in FIG. 3 is the pressure activated switch 35. Located on the surface of the back cover 13 is a projection 36. This may merely be a raised plastic projection or a raised portion associated with the cover 13. As can be seen from FIG. 3, when the book 10 is closed, the projection 36 contacts the switch 35 to activate the same. In this manner, upon closure of the menu, the switch 35 removes power from power source 30. Upon the opening of the book 10, the switch 35 applies power to the panel 23 and thus causes the graphic data located on panel 20 to be illuminated.

Referring to FIG. 4, there is shown a typical circuit for energizing an electroluminescent panel such as 23. It is understood that the circuit configuration is merely by way of example and numerous other circuits can be employed to generate a suitable waveform at a proper voltage level for activation and excitation of the panel.

In essence, the battery 31 is coupled to a transistor oscillator circuit 37. The oscillator circuit 37 is a well known configuration and is referred to as an astable multivibrator. Essentially, the multivibrator converts the DC battery voltage to a repetitive voltage at the output. The repetitive voltage is of any selected frequency such as 120 Hz for energizing typical commercially available panels as 23. The frequency of operation of the circuit 37 is a function of the magnitudes of the resistors as 40 and 41 in the collector electrodes of the transistors as well as capacitors 42 and 43. It is well known that based on present technology, such oscillators are commercially available in integrated circuit form and as such, are extremely small and reliable in operation.

The output signal from the oscillator 37 is applied to an amplifier transistor configuration 64. The output of transistor 64 may be applied to a voltage multiplier circuit 44. Again, many devices such as transformer, diode circuits and so on are used to raise the potential or the voltage from an oscillator source as 47. These techniques are well known and the potentials at the output of the voltage multiplier 44 is at a frequency and level to completely and efficiently excite the panel 23.

As indicated, connector 66 is shown in FIG. 4. One end of the connector is coupled to the anode of a diode 50. The cathode of the diode is coupled to a capacitor 62 and a resistor network 63 is shown coupled to the battery 31. The circuit thus described is a typical charging circuit for a battery. Hence, by using a connector configuration comprising a male plug 61 connected to another male plug 52, one can now apply line potential to the battery charger via the female circuit 66 to charge the battery as often as necessary.

The oscillator 37 is coupled to ground through the switch 35. Hence, when switch 35 is in the position shown, a circuit path is provided and the oscillator will conduct and operate. When switch 35 is open and corresponding to the closing of the book, the oscillator cannot conduct and no current can flow and hence, the panel 23 will not be illuminated.

FIG. 5 shows one typical construction for the switch 35. In essence, the switch 35 includes a moveable plastic plunger member 51. The member 51 is an elongated member and has a spring 52 which encircles member 51 and is coupled between the top surface of the cover